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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yong Cheol Park

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07/19/2006

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,131	PARK, YONG CHEOL	
	Examiner	Art Unit	
	Jorge L. Ortiz-Criado	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-9 and 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi U.S. Patent No. 6,373,800.

Regarding claim 1, Takahashi discloses a method of formatting a recording medium having a recording capacity, comprising the steps of:

receiving a command for formatting the recording medium;

registering defective areas in primary defect lists (PDL) and performing a slipping replacement corresponding to a number of PDL entries (See col. 13, lines 25-36),

determining whether a slipping replacement error occurred in response to the number of PDL entries (see col. 13, lines 38-58):

checking a number of un-slipped PDL entries if a slipping replacement error occurred (see col. 13, lines 38-58) ; and

adjusting the recording capacity of the recording medium based on the number of un-slipped PDL entries, by excluding a capacity corresponding to the number of un-slipped PDL entries (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 2, Takahashi discloses wherein the recording capacity adjusting step comprises excluding a capacity corresponding to the number of un-slipped PDL entries (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 3, Takahashi discloses wherein a recording capacity information written in a specified area of the recording medium is updated to indicate the adjusted capacity, wherein the recording capacity information indicates total logical sector numbers (See col. 7, lines 49-62; col. 13, line 58 to col. 14, line 10).

Regarding claim 4, Takahashi discloses a method of formatting a recording medium having a predetermined recording capacity including a spare area for replacing defect areas, the method comprising the steps of:

registering defective area information in a defect area management list if a command for formatting the recording medium is received (See col. 13, lines 25-36),

replacing the defective areas with corresponding spare areas in response to the number of registered defective areas in the defect area management list during the formatting (see col. 13, lines 38-58);

confirming whether or not an error has occurred due to lack of the spare area in comparison to the defective areas (see col. 13, lines 38-58), and adjusting the recording capacity of the recording medium based on the number of unreplaced defective areas if it is confirmed that an error occurred (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 5, Takahashi discloses wherein the recording capacity adjusting step comprises excluding a capacity corresponding to the number of unreplaced defective areas (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 6, Takahashi discloses wherein the recording capacity information written in a specified area of the recording medium is updated to indicate the adjusted capacity, wherein the recording capacity information indicates total logical sectors numbers (See col. 7, lines 49-62; col. 13, line 58 to col. 14, line 10).

Regarding claim 7, Takahashi discloses a method of formatting a recording medium having a predetermined recording capacity including a spare area, the method comprising the steps of:

registering defective segment addresses corresponding to defective segments in a defect list in the recording medium if a command for formatting the recording medium is received (See col. 13, lines 25-36),

performing a defect replacement corresponding to the defective segment addresses registered in the defect list during the formatting, defect replacement for replacing defective segments (see col. 13, lines 38-58);

determining if an error occurred during the defect replacement, wherein the error is caused when a size of the defective segments exceeds the spare area (see col. 13, lines 38-58);

stopping the defect replacement if an error occurred and checking un-slipped segments by determining a number of the defective segments not subjected to the defect replacement due to insufficient spare area (see col. 13, lines 38-58); and

excluding a portion from the recording capacity, the portion corresponding to the number of un-slipped segments, thereby managing the un-slipped segments continuously (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 8, Takahashi discloses wherein the first defect list is a primary defect list (PDL) (see col. 13, lines 38-58).

Regarding claim 9, Takahashi discloses wherein the defect replacement comprises a slipping replacement to be performed during the formatting process (see col. 13, lines 38-58).

Regarding claim 11, Takahashi discloses wherein each defective segment comprises a defective sector (see col. 13, lines 38-58).

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Regarding claim 12, Takahashi discloses updating recording capacity information to indicate excluded portion (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 13, Takahashi discloses wherein the recording capacity information is total logical sector numbers (See col. 7, lines 49-62; col. 13, line 58 to col. 14, line 10).

Regarding claim 14, Takahashi discloses a method of formatting a recording medium having a recording capacity, comprising the steps of:

receiving a command for formatting the recording medium (see col. 13, lines 38-58),
performing a slipping replacement corresponding to a number of PDL entries (see col.

13, lines 38-58),

determining whether a slipping replacement error has occurred in response to the number of PDL entries (see col. 13, lines 38-58),

checking a number of un-slipped PDL entries if a slipping replacement error is occurred (see col. 13, lines 38-58) and

excluding a portion from the recording capacity, the portion corresponding to the number of un-slipped PDL entries to replace the un-slipped PDL (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 15, Takahashi discloses updating recording capacity information to indicate to exclude portion (see col. 13, line 58 to col. 14, line 2; col. 14, line 66 to col. 15 line 10).

Regarding claim 16, Takahashi discloses wherein the recording capacity information is total logical sector numbers (See col. 7, lines 49-62; col. 13, line 58 to col. 14, line 10).

Response to Arguments

2. Applicant's arguments filed 05/18/2006 have been fully considered but they are not persuasive.

Applicant argues that Takahashi does not disclose that the recording capacity is adjusted.

The examiner respectfully disagrees and cannot concur with the Applicant because Takahashi clearly discloses adjusting the "recording capacity" of the recording medium by ADDING/ /EXPANDING/CREATING spare areas see the col. 13, line 19 to col. 14, line 2), where Takahashi discloses excluding a portion from the recording capacity and specifically from the USER AREA (see col. 14, lines 11-22), the recording capacity of the information recording medium is adjusted since areas from the recording capacity of user area are utilized for ADDING/ /EXPANDING/CREATING spare areas. As for purpose of explanation and as for example provided to the Applicant, as shown in Fig. 11 models 1-3, when a spare area is (n) the user area is 4.7GB, but when there is existence of more "adding/expanding" of spare areas as in Fig. 11 model 4, the USER AREA is reduced to 4.56GB, hence the recording capacity of the user area is reduced. Therefore, Takahashi discloses adjusting the recording capacity as claimed.

Furthermore, Takahashi discloses adjusting the “recording capacity” of the recording medium ADDING/ /EXPANDING/CREATING spare areas based on the number of un-slipped PDL entries. Takahashi discloses that when confirmed that an error has occurred in the slipping replacement process, which an error is due to insufficient spare areas, that means when there is insufficient spare area the slipping replacement that requires slip the defective areas to spare areas, cannot be performed, hence the defective areas are not able to be slipped. And when slipping replacement error occurs, Takahashi adjust the recording capacity of the recording medium, as outlined above, by ADDING/ /EXPANDING/CREATING spare areas based on the error caused in the slipping replacement. By this recording capacity adjustment of Takahashi the slipping replacement of the un-slipped PDL entries can be performed after such adjustment of the recording capacity and the capacity of the information recording medium can be fully and effectively utilized.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(12:30 pm- 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER